





TACOM LCMC IB and and DMSMS Mitigation

Source: RANDAL GAEREMINCK, ASSOCIATE DIRECTOR As of: 260800SEP11

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Agenda



- Introductions
- Purpose
- IBIT/ IBET Mission
- Automation Alley Contract
- TACOM Industrial Base Visibility and Communication Tool description and demonstration
- TACOM Industrial Base Trend / Risk Analysis
- Sustainment Engineering Risk Assessment (SERA)
- Summary/Questions



Purpose



- Provide an overview of the new Industrial Base and DMSMS mitigation tools and capability
- Demonstrate the TACOM Industrial Base Visibility and Communication Tool
- Review the TACOM Industrial Base Trend / Risk Analysis
- Provide an overview of the Sustainment Engineering Risk Assessment (SERA) objective, process, and benefits



TACOM LCMC Industrial Base Integration Team (IBIT)

Testing, Verification and Validation

Operational Impact Analyses

Reverse Engineering

Strategic Materials

DMSMS Management & Operation

Tracking of Bills of Material and Technical Data Packages

Industrial Capability Assessments

Defense Priorities Allocation System

Industrial Labor Relations

Production Readiness Review

Surge and Contingency Operations

Committee on Foreign Investment in the United States (CFIUS)

One Team One Vision

Industrial Base Engineering Team IBET



IB Issues
PEOs,
ILSC,
Depots,
OEMs,
Etc.

Industrial Base Management Group IBMG



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Automation Alley Contract



Diminishing Manufacturing Sources and Material Shortages



- Automation Alley, Michigan's largest technology business association, is currently on contract with TARDEC to provide industrial base support for the TACOM LCMC Diminishing Manufacturing Sources and Material Shortages (DMSMS) program
- The contract with Automation Alley has created a capability to establish commercial industrial base visibility and communicate TACOM LCMC requirements with companies across the United States
- Similar to STS work directive-based contract



Automation Alley Capabilities,





- Repair part analysis and data mining capability for families of vehicles.
- Manufacturing/Industrial base capability, trend, and risk knowledge
- Reverse engineering and administration to provide replacement parts and Technical Data Packages (TDPs)
- Locating and vetting suppliers for specific components or manufacturing technology
- Industrial Base Visibility and Communication tool manufacturer's contact information and integrated email communication capability
- Prototype demonstration and test planning and support
- Technical competencies in many mechanical/electrical areas



Contract Work Directives



- WD001 Program Management
- WD002 Industrial Base Visibility and Communication Tool
- WD003 High Purity Aluminum Electroplating Sources
- WD004 Industrial Base Office Sector Study
- WD005 Transducer Sources
- WD006 Valve Sources
- WD007 DMSMS Case Analyses
- WD008 TACOM Bi-Annual Industrial Base Trend/Risk Analysis
- WD009 TACOM LCMC Legacy Vehicle Sustainment Studies
- WD010 Replacement of Cadmium Hex-Chrome plated material on TACOM LCMC equipment

Industrial Base Visibility and Communication Tool



Objective:

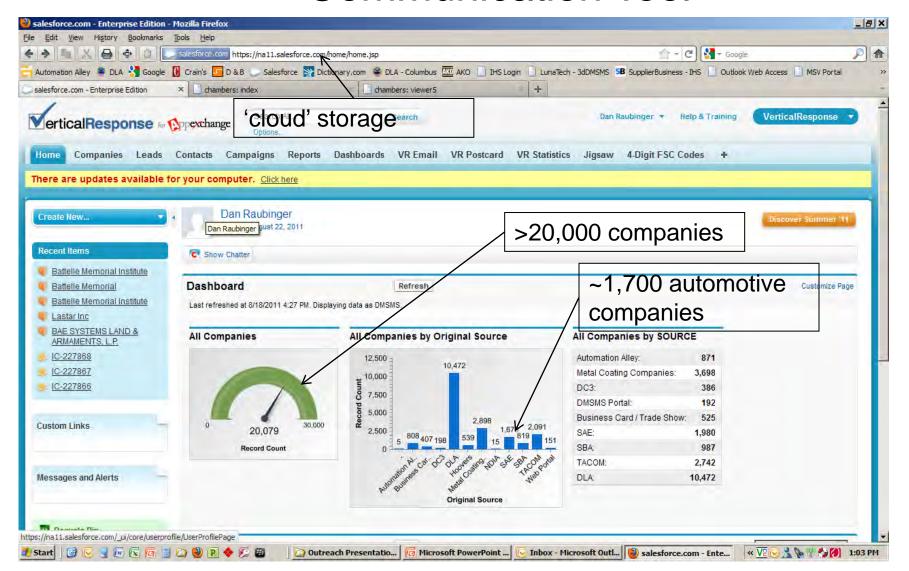
- Create, update, and maintain Industrial Source access to support the Diminishing Manufacturing Sources and Material Shortages (DMSMS) effort.
- Identify current TACOM sources and potential industrial supply base sources to provide a maximum number of available options to resolve DMSMS issues.
- Analyze trends and risks associated with the U.S. commercial industrial base.

Linking TACOM LCMC requirements to Industrial Base Capabilities



🚜 Industrial Base Visibility and **Communication Tool**







Geographical View of Suppliers



LunaTech Designs Google Earth plug-in





Industrial Base Trend/Risk Analysis

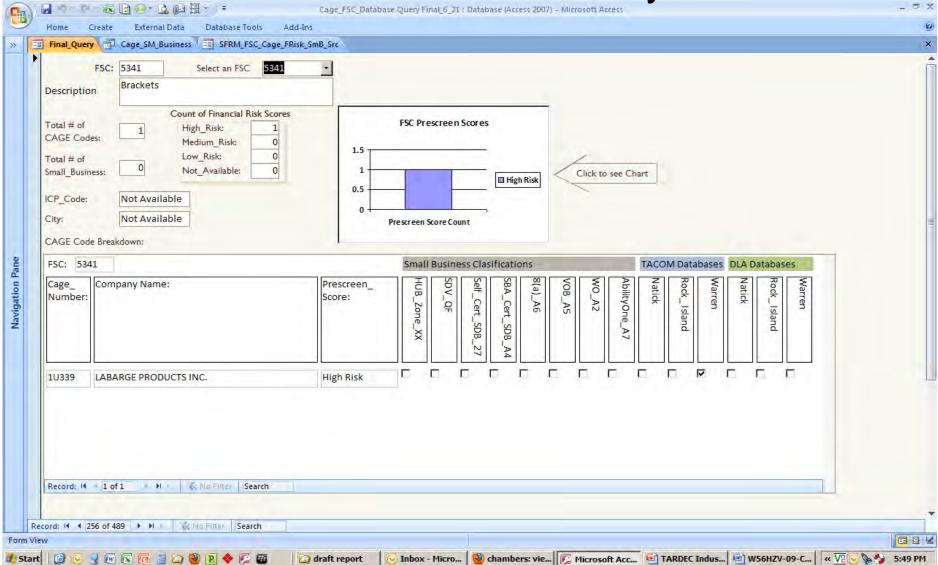


- Health and Risk Analysis of TACOM Industrial Base sorted by the 489 Federal Supply Classes.
- Evaluation Criteria used
 - Number of companies per FSC
 - Financial Health
 - Trends
- Bi-Annual Assessments



Industrial Base Trend/Risk Analysis

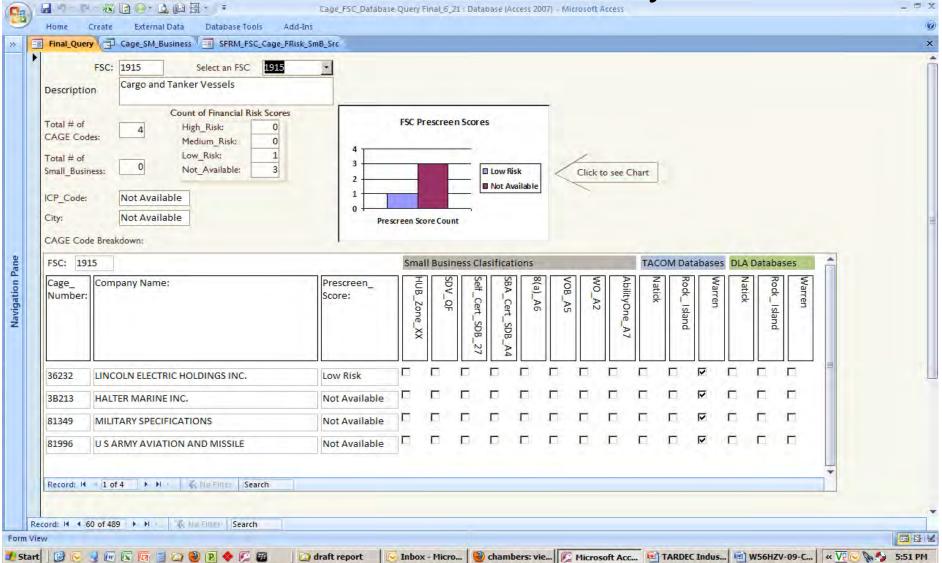






Industrial Base Trend/Risk Analysis







Escalating Support Challenges



- Increasing O&S requirements (65-80% of Life Cycle Cost)
- Equipment condition due to deployments (Degradation)
- Obsolescence of Army systems due to age (25-40 yrs)
- Loss/change of manufacturing sector for COTS (Support Strategy Risk)
- Inconsistent lifecycle sustainment policy & planning (Organic vs. CLS vs. TDPs?)
- Inconsistent engineering/design influence for sustainment (Poor Lifecycle Planning)
- Stove-piped industrial base issue investigation & resolution (ILSC & PM vs. LCMC)
- Negative economic trends impacting commercial industrial base (Industrial Base Risk)
- Environmental and safety impacts (e.g., cadmium, asbestos, Pb-free electronics)

Result = Increase in Reactive Support Issues
Solution = Proactive Logistics Engineering Support



Reactive vs. Proactive

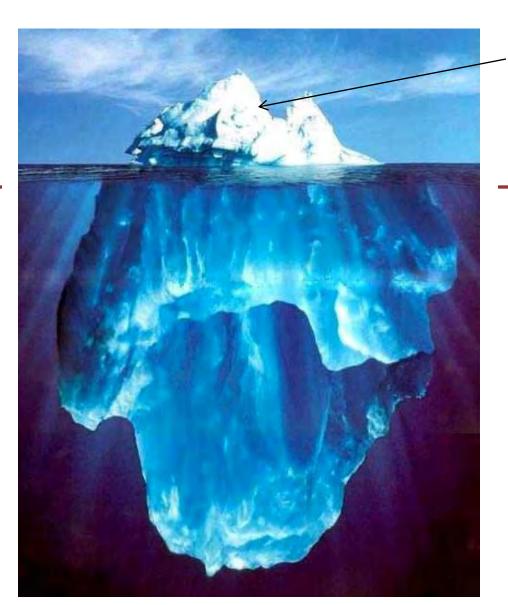


REACTIVE





PROACTIVE

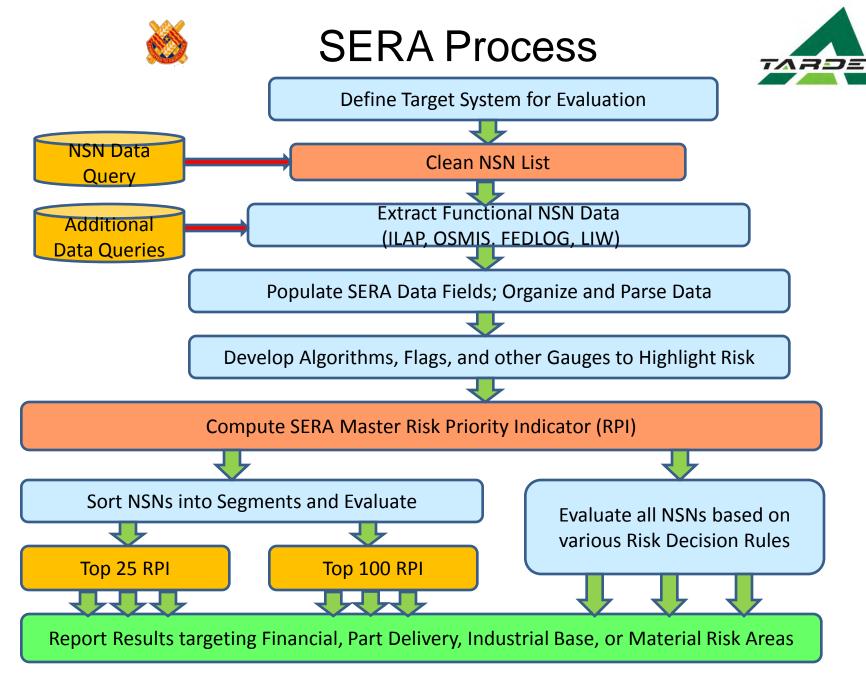


- Backorders
- DLA 339s
- Shortages
- •Obsolescence
- •Etc.

Utilize methods (SERAs) to identify and prevent reactionary measures



- Proactively evaluate equipment data and identify industrial base related obsolescence and sustainment risk.
 - Leverage all existing available data (support strategy, usage, organic, and commercial).
 - Identify and document evidence of system, platform, or vehicle level obsolescence.
 - Provide platform or equipment managers factual documentation necessary to forecast resources via Army Working Capital Fund (AWCF), Sustainment System Technical Support (SSTS), and plan corrective actions and material change efforts.
 - Support AR 700-127 (Post Fielding Sustainment Readiness Reviews (SRR).





Sustainment Data Elements



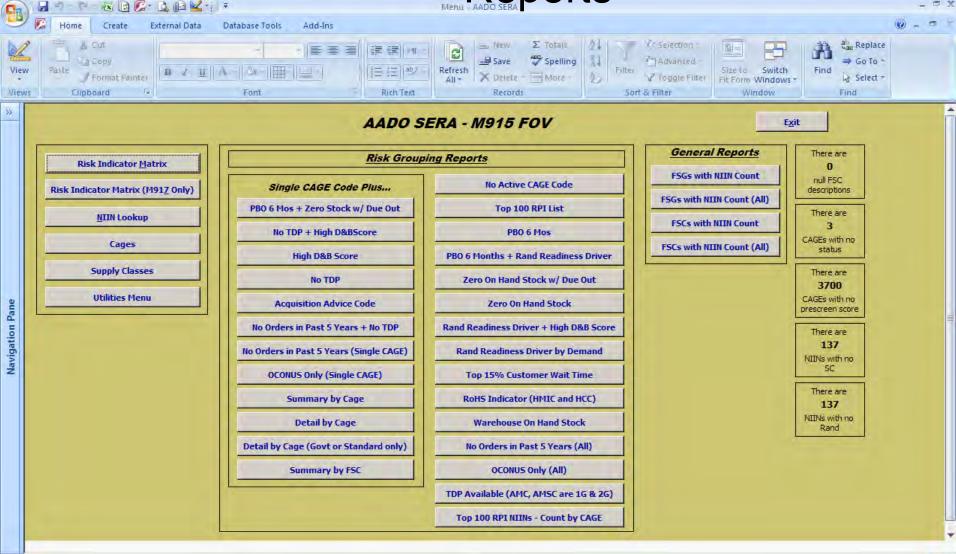
Weight Factor	Indicator Description	Risk Condition (Indicator =1)
5.0	Single or no CAGE Code	1: <=1 CAGE Code
5.0	PBO 6-Month	1: Y
4.0	Zero Immediate OH Stock with Due Out	1:ZBAL="Y" and OH<0.5*RO
3.5	Acquisition Advice Code	1: AAC= Y,V,N,X,T, Inactive or Nomenclature = Inactive
3.5	Top 15% CWT	1: >= top 15% in latest year
3.5	Warehouse OH Stock < RO	1: OH <ro< th=""></ro<>
3.0	Zero Stock with Recent Demand	1: OH=0 with Dmd in last 2 yrs
3.0	No Recent Demand	1: OSMIS & ILAP=0 in last 2 yrs
3.0	D&B High Risk Indicator	1: Y
2.5	OCONUS Only CAGE Code	1: All CAGE Codes(>0) = OCONUS
2.5	Top 15% Closed Maintenance Work Order	1: >= top 15%
2.5	Top 15% Open Maintenance Work Order in past 12M	1: >top 15%
2.5	Readiness Driver	1: Y
2.5	Technical Data Unavailable	AMC/AMSC & DAC
2.0	Closed Maintenance Work Order	1:>0
2.0	Open Maintenance Work Order in past 12M	1:>0
2.0	CWT Increasing	1:Latest FY >1.1*Prev FY AND Latest FY > Median
2.0	Recent Back Order (60 day)	1: Y
2.0	Hazardous Materials	HMIC, HCC, & characteristic
1.5	Shelf Life Exceeded	1: Y
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MS Access Views and Reports





Form View

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Risk Priority Indicator Matrix

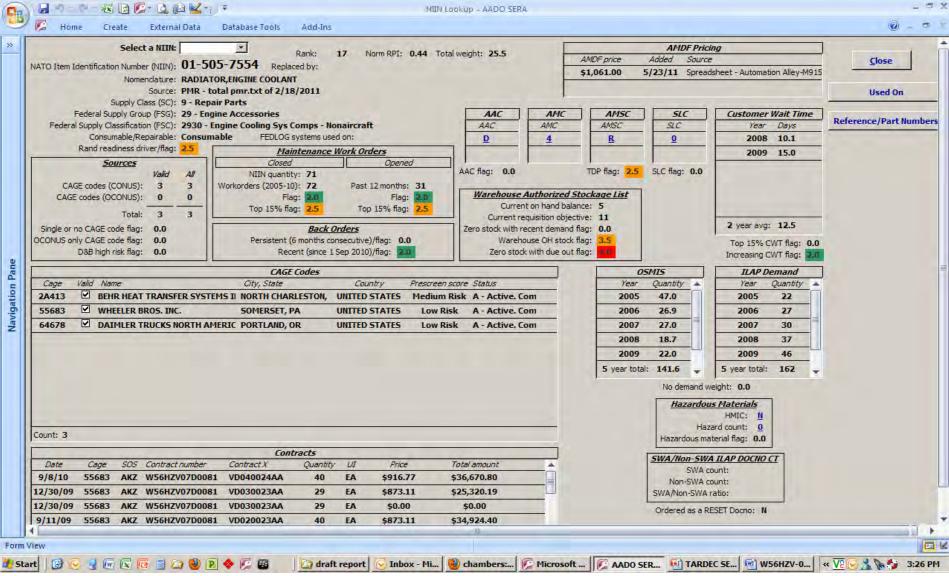


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	3	0.55	13/6/0				5.0	4.0	0.0	3.5	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	2.0	2.0
	4	0.54					5.0	4.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	0.0	2.0
	5	0.53	-	5 01-496-			5.0	0.0	0.0	3.5	3.5	0.0	0.0	3.0	0.0	0.0	2.5	2.5	2.5	2.0	2.0	2.0	2.0
	6	0.50		01-327-			5.0	4.0	0.0	0.0	3.5	0.0	0.0	3.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	0.0	2.0
	7	0.50		5 01-032			5.0	0.0	0.0	0.0	3.5	0.0	0.0	3.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	0.0	2.0
	8	0.50	28.5	01-495	5-2851	5.0	0.0	4.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.0	2,0	0.0	2.0
	9	0.49	28.0	01-446	<u>3-9506</u>	5.0	5.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	0.0	0.0	2.0	2.0	0.0	2.0
	10	0.49	28.0	01-514	-2457	0.0	5.0	4.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	0.0	2.5	2.0	2.0	2.0	2.0
	11	0.48	27.5	<u>01-544</u>	-2103	0.0	5.0	0.0	0.0	3.5	0.0	0.0	3.0	0.0	0.0	2.5	2.5	2.5	2.5	2.0	2.0	0.0	2.0
	12			<u>01-319</u> -			5.0	0.0	0.0	3.5	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	2.0	2.0
	13			01-533			5.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	2.0	0.0
	14			01-533			5.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	2.0	0.0
	15			01-435			5.0	4.0	0.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.0	0.0	2.0	2,0
Ų	16	0.45		01-331	_		5.0	4.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2,0	0.0	2,0
	17	0.44					0.0	4.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0
	18	0.43		01-505			5.0	4.0	0.0	3.5	3.5	0.0	0.0	0.0	0.0	2.5	0.0	2.5	0.0	2.0	0.0	0.0	2.0
	19	0.43		01-274			5.0	0.0	0.0	0.0	3.5	0.0	0.0	3.0	0.0	2.5	2.5	0.0	2.5	2.0	2.0	0.0	2.0
	20	0.43		5 <u>01-481</u>			5.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	0.0	0.0	2.0	2.0	0.0	2,0
	21		-	5 <u>01-339</u> -	To 10 (1)		5.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.0	2.0	0.0	2.0
	22	0.43					0.0	4.0	3.5	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	0.0	2.0
	23	0.43					5.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	0.0	2.0
	25	0.42	24.0	01-479			5.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	2.5	2.5	2.5	0.0	2.0	2.0	2.0	24
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Additional NIIN Data

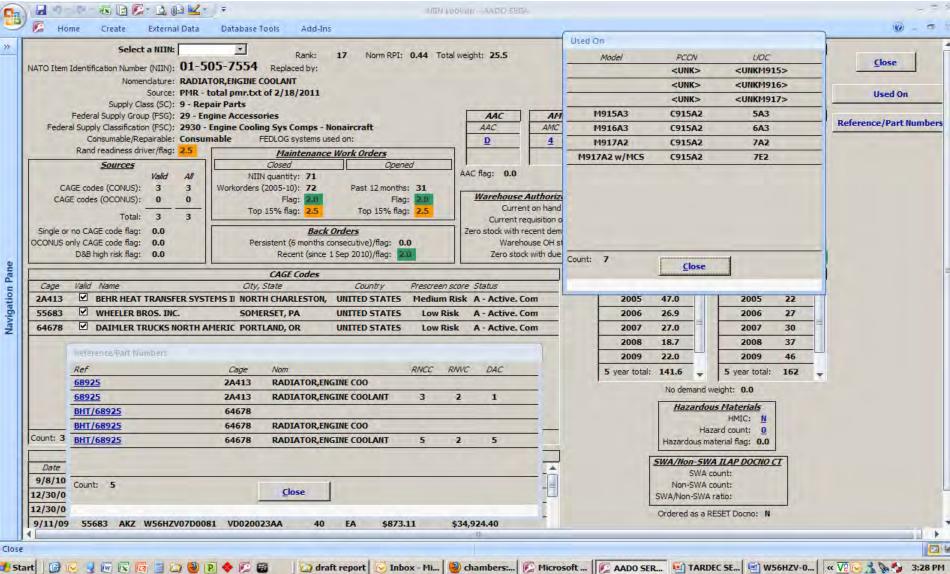






Additional NIIN Data





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Sustainment Engineering Risk Assessment (SERA) Benefit

- Proactively evaluate equipment data and identify industrial base related obsolescence and sustainment risk.
- Leverage all existing available data (support strategy, usage, organic, and commercial).
- Identify and document evidence of system, platform, or vehicle level obsolescence.
- Provide platform or equipment managers factual documentation necessary to forecast resources via Army Working Capital Fund (AWCF), Sustainment System Technical Support (SSTS), and plan corrective actions and material change efforts.
- Support AR 700-127 (Post Fielding Sustainment Readiness Reviews (SRR).



Available SERA Capability



- Application:
 - Component
 - Vehicle
 - Family of Vehicles
 - PM/PEO Portfolio
 - LCMC/Command
- Data refresh:
 - One-time study (M915)
 - Quarterly, semiannual, annually (Abrams)
- Potential for other sustainment opportunities cost and sector studies, VE, commonality assessments



Summary



- Provided an overview of the new Industrial Base and DMSMS mitigation tools and capability
 - Demonstrated the TACOM Industrial Base Visibility and Communication Tool
 - Reviewed the TACOM Industrial Base Trend / Risk Analysis
 - Provided an overview of the Sustainment Engineering Risk Assessment (SERA) objective, process, and benefits
- Discussion and questions.